Introduction

Melbourne’s tram network has evolved since 1885 and is now the largest in the world. The network consists of 29 routes across Melbourne spanning 249km.

In the 12 months to December 2012, 186.9 million passenger trips were taken on Melbourne’s tram network. As the city grows and public transport patronage increases there is a growing need to improve the accessibility, reliability, capacity and efficiency of the tram network.

As the tram franchisee, Yarra Trams has a contractual agreement with Public Transport Victoria (PTV) on behalf of the State to operate and manage Melbourne’s tram network. Under the agreement Yarra Trams is responsible for the daily management of service performance, as well as maintenance of vehicles and infrastructure. The agreement sets out how the two parties should work together for the benefit of the travelling public in developing and improving services and the assets associated with the tram network.

Travelling on trains, trams, buses and coaches will be made progressively more accessible to people with a mobility restriction, by identifying barriers to access and making improvements to public transport services.

A specific outcome of the recently released State Disability Plan 2013-2016 is to provide more transport options for people with a disability including making public transport more accessible and easier to use.

The Victorian Government has identified and addressed a number of barriers to accessing public transport services affecting all Victorians, but in particular, people with disabilities and those with mobility restrictions. In recent years, Victoria has made improved access to the tram network through a number of initiatives including:

> Constructing more than 360 level access tram stops across the network;
> Delivering a tram replacement program with 100 low-floor accessible trams currently in operation and a further 50 new low-floor ‘E Class’ trams on order; and
> Developing gap reducing infrastructure that will be installed on 59 low-floor trams so that users can independently board trams in all cases at level access stops.
Melbourne’s tram network

Currently, 100 low-floor accessible trams operate in Melbourne’s fleet of 487 trams. There are two fleets of low-floor trams operating on the network – these are known as the ‘Combinio’ and ‘Citadis’ trams. Low-floor trams currently make up around 22 per cent of the tram fleet, with a further 50 low-floor ‘E-Class’ trams on order.

There are more than 1,700 tram stops, of which 364 (21 per cent) have been upgraded to level access stops to improve accessibility so that people can independently board. Experience shows that these stops are accessible for most users of public transport. Taking the network as a whole, tram stops meet around 60 per cent of Disability Standards for Accessible Public Transport (2002) (DSAPT) requirements. However, this is a network wide figure based on the 30 DSAPT criteria and does not mean that 60 per cent of stops are fully accessible so that users can independently board trams. Many stops meet some but not all of the DSAPT requirements.

As noted above, there are 100 low-floor trams – these are concentrated on seven of the 29 tram routes in Melbourne. The level access stops are spread out over a greater number of tram routes in Melbourne to improve accessibility, safety and reliability for all.

The fleet of 100 low-floor trams pass level access stops on seven tram routes in Melbourne, including:

> Route 96 – East Brunswick – St Kilda (low-floor trams only) – 44 per cent level access stops; and
> Route 109 – Box Hill – Port Melbourne (low-floor trams only) – 34 per cent level access stops.

The other five tram routes, routes 5, 6, 8, 48 and 72 have a mix of low-floor and high-floor trams.

Challenges

There are challenges and constraints associated with ensuring access to tram services. Melbourne has the largest tram network in the world and the network will require extensive infrastructure and rolling stock upgrades or replacement to meet DSAPT requirements. Improving access to trams is constrained in the short term by the fact that older high-floor trams cannot be retro-fitted for boarding purposes. Construction of level access stops can be constrained by issues associated with traffic congestion, parking availability, business and residential access in certain situations.

Where a level access stop exists, most passengers with a disability or mobility restriction will be able to board a low-floor tram safely and independently unless there is a boarding gap acting as a barrier to access.

The horizontal gap and step sizes between low-floor trams and level access can vary due to factors such as tram and infrastructure construction tolerances, tram and track condition, and suspension height differences between a loaded and unloaded tram. This means that the gap and step may vary from location to location.

The height of level access stops has been standardised, however there are still a number of tram stops that for historical reasons were not built to the current standard.

PTV and Yarra Trams strive to provide independent access which is best achieved with low-floor trams and level access stops. User trials have found that at “standard” level access stops (i.e. built at 290mm height) trams are accessible for most people including wheelchair and mobility aid users (i.e. most users were able to independently board and alight the tram).

The way forward

PTV and Yarra Trams are working hard to improve the accessibility of the tram network.

Moving towards a low-floor fleet

$70 million has been committed over four years for tram stop upgrades (2010-14), which forms part of an overall $800 million tram upgrade program.

This tram upgrade program also incorporates the purchase of 50 new low-floor trams (E-Class) to arrive on the network between 2013 and 2018 and upgrades to Route 96, the first route on which the new low-floor trams will operate.

As the 50 new low-floor trams on order are progressively introduced to Route 96 from late 2013, larger trams with greater capacity will be put on routes where patronage is greatest, providing benefits across the network.

The new tram design includes a fixed gap filler which will reduce the vertical and horizontal boarding gaps, slip resistant floors, more places for passengers to hold on, nominated positions for wheelchairs with access to a button to signal to the driver, and has been designed to be even closer to level with level access stops. All future tram orders will be low-floor, meaning that progressively the entire fleet will be low-floor.

Quick fact

The Government is investing over $800 million as part of the tram upgrade program to improve accessibility.
Upgrading tram stops to level access stops

PTV in partnership with Yarra Trams and VicRoads is developing plans for infrastructure upgrades along Route 96 to improve access, safety, reliability and efficiency for tram passengers using the route. The upgrades include building level access stops and introducing the new low-floor trams on the route.

Level access stops incorporate a range of features that improve accessibility such as audio and visual information, tactile ground surface indicators and shelters. Currently around half of the stops along route 96 are level access, with the remaining tram stops to be modified and made accessible. Improvements will also be made to the road space to separate the trams from road traffic where possible. Funding for the project has been allocated as part of the $800 million tram upgrade program.

Another initiative includes the construction of Easy Access Stops (EAS). EAS operate the same way as existing kerbside tram stops with the exception that the road is raised (much like an extended speed-hump), improving access to trams. Passengers hail trams from the footpath, wait for traffic to stop, and cross the raised traffic lane to the waiting tram. EAS were constructed in Macarthur Street, East Melbourne, in November 2011, just near the Parliament Station entrance. This has proved to be a success with improved passenger access to Route 109, which operates low-floor trams between Box Hill and Port Melbourne.

To suit the road environment EAS that were constructed on Bridge Road, Richmond, were constructed slightly different to the one at Macarthur Street. Bridge Road presents a difficult urban environment, with its characteristics including a shopping strip, busy arterial road and significant traffic flows. The new EAS on Bridge Road maintain two traffic lanes in peak hour via a raised kerbside traffic lane and a shared tram and vehicle lane adjacent to the stops. This allows the high volumes of traffic to flow during the morning and afternoon peaks.

Construction of two EAS between Punt Road and Church Street were completed in March 2013. These stops will be monitored and reviewed so as to inform the applicability of this style of stop across the Melbourne network.

Quick fact
There are more than 1,700 tram stops, of which 364 (21 per cent) have been upgraded to level access stops.

Upgrading existing level access stops

PTV has identified a number of priority level access stops that require works to meet the 290mm standard design requirements and is working with Yarra Trams to develop a program of works to rectify these stops.

Design standards are in place to ensure that future stops are built to a common standard.

Reducing the gap – Combino

The entire Combino fleet will be retro-fitted with footplates by late 2013 which will reduce the horizontal gap, therefore making the trams more accessible. Yarra Trams undertook a series of stakeholder sessions trialling the footplate and feedback from participants has been overwhelmingly positive.
Improved customer service and engagement

PTV actively engages with a range of stakeholders, including people with a disability, mobility restriction and older people to ensure they are adequately consulted about ways to improve access to the network. For example, members of the community participated in trials of the new low-floor 'E Class' trams and the Combino foot plates.

PTV regularly meets with the Public Transport Access Committee (PTAC), which is made up of community representatives with a demonstrated knowledge and understanding of public transport access issues that impact on people with a disability, mobility restriction and older people. PTAC provides independent strategic advice to the Minister for Public Transport with the aim of improving public transport access for people with a disability or with mobility issues.

PTV has also established the Public Transport Operators Committee (PTOC) that brings representatives from Victoria's public transport operators together to address common issues and challenges on the network including tram accessibility issues.

Quick fact

In the 12 months to December 2012, 186.9 million passenger trips were taken on Melbourne’s tram network.

PTV and Yarra Trams are working closely to improve accessibility through improvements to customer service.

For example, in April 2013 all 59 Combino trams were upgraded to have automated 'next stop' announcements. Accessible transport information is also available on the PTV and Yarra Trams websites.

PTV welcomes feedback from public transport users. To provide your feedback, visit ptv.vic.gov.au or call 1800 800 007 (6am – midnight daily).